



---

**Air Products and Chemicals, Inc.**  
7201 Hamilton Boulevard  
Allentown, PA 18195-1501  
Telephone (610) 481-4911

January 11, 2010

Ms. Mary Nichols – Chair, California Air Resources Board  
1001 I Street  
PO Box 2815  
Sacramento, CA 95812

RE: Comments regarding November 24<sup>th</sup> Preliminary Draft Regulation for a Cap and Trade Program

Dear Ms. Nichols:

Air Products is a global, Fortune 250 company that supplies atmospheric, process, medical and specialty gases, specialty chemicals and process equipment serving a diverse range of industries, including primary metals, refining, electronics, food and glass sectors, as well as healthcare and many other general manufacturing industries. Air Products has over 400 employees and 30 locations in California, including numerous atmospheric gases (oxygen/nitrogen/argon) and hydrogen production facilities, electronic specialty gases and materials production and electricity generating facilities. In addition, Air Products serves a fleet of hydrogen fueling stations across the state, facilitating the transition to carbon-free transportation.

Air Products welcomes the opportunity to submit comments regarding the Preliminary Draft Regulation for a California Cap and Trade Program issued 24 November 2009. Air Products supports the state's efforts to develop a fair, effective, and economically efficient means by which to meet the requirements of AB32. We recognize that not all of the cap and trade implementing details, including some very critical aspects, have been defined in this Preliminary Draft. As such, we have compiled comments that are both specific to the draft language, as well as general policy positions for those aspects under development.

Air Products most significant concerns regarding the Preliminary Draft Regulation are:

- ***Fair Allowance Allocation*** – Allowance allocations to energy intensive industries are needed to provide temporary cost mitigation during the transition to a carbon-constrained economy. A fair allowance allocation process will facilitate achieving the targeted emission reductions while recognizing and further incenting early actions and investment in the most efficient production processes. An allocation process based on production-based benchmarks will provide incentives for reinvestment in the most efficient production processes – an incentive highly diluted if allocations are awarded based on historical emissions, regardless of process efficiencies. Similarly, allocations that are consistently applied, regardless of who produces a product, will prevent market distortions than would result from a biased allocation approach where some entities receive allocations and others do not, while operating the same production processes.
- ***Avoid Excessive Limitations on the Use of Offsets*** – Maximize the use of offsets to allow cost-effective emission reductions to be achieved. Utilize the cap and trade program elements proposed (e.g. project registration, standardized, conservative quantification methods and verification) to ensure offsets meet the intent of the cap and trade program without overly restricting the quantity, type or geographical origin of the offsets.

- ***Insure Emissions Do Not Incur Redundant Surrender Obligations*** – In the draft program language, there is a risk of overlapping coverage for emissions from industrial facilities that are the result of fuel consumption where the fuel is supplied by secondary (non-Local Distribution Company) suppliers. The regulation must provide a mechanism to ensure duplicative surrender obligations do not occur.
- ***Maintain Three-Year Compliance Periods*** – Longer compliance periods allow for smoothing of the allowance supply and demand, reducing volatility in allowance pricing and affording entities sufficient planning horizons and allowance price stability to make investments that reduce emissions. Reducing compliance periods to one-year in order to mitigate the minor risks associated with bankruptcy of entities with unsatisfied surrender obligations detracts from the cap and trade program’s effectiveness; and
- ***Treat Hydrogen and Conventional Transportation Fuels Consistently*** – The Preliminary Draft Regulation indicates that hydrogen used as a transportation fuel will incur a surrender obligation upon production, and not when the fuel is consumed as a transportation fuel. Under the Phase-in approach for covered entities, this treatment of hydrogen as a transportation fuel results in surrender obligations beginning in 2012, whereas other transportation fuel consumption will not incur a comparable surrender obligation until 2015. All transportation fuels should be treated under the cap and trade rule in a consistent fashion.

The following complete set of comments are organized according to the subarticles and sections of the Preliminary Draft Regulation

#### **SUBARTICLE 2 - DEFINITIONS [§95802]**

The definition of “Biomass Fuel” [§95802(15)] indicates the entire heat generating capacity of such fuels must come from biomass. Such a restrictive definition precludes recognition of the biomass portion of mixed (fossilized and non-fossilized) fuels such as tire-derived fuels and municipal solid wastes. The Mandatory Reporting Rule (MRR) already includes methods to distinguish the biomass portion of mixed fuels (§95125(h)). Air Products recommends that when combustion of biomass fuels is exempt from creating a compliance instrument surrender obligation, so should the biomass portions of mixed fuels be exempt

#### **SUBARTICLE 3 - APPLICABILITY [§95820]**

The Preliminary Draft Regulation identifies presumptively covered industrial production sources in §95820(a) and presumptively covered Natural Gas and Natural Gas Liquids Deliverers in §95820(d) and (e), respectively. There are fuel (and feedstock) supply relationships between covered industrial entities and Natural Gas Deliverers and Natural Gas Liquids Deliverers that appear to satisfy the descriptions of both §95820(a) and §95820(d) or (e), creating duplicative surrender obligations by the two entities. Clearly the cap and trade rule does not intend to require redundant compliance obligations for the same emissions, but the language is not sufficiently clear to determine the appropriate compliance obligation. Air Products recommends clarifying language be added to §95820 and §95950(a) and (c), indicating the intent for a singular surrender obligation and a mechanism to resolve redundant applicability.

#### **SUBARTICLE 4 – COMPLIANCE INSTRUMENTS ISSUED BY EXTERNAL GHG EMISSION TRADING PROGRAMS [§95860]**

The Preliminary Draft Regulation seeks feedback regarding the ability to use compliance instruments (allowances and/or offsets) from external GHG emission trading systems to meet surrender obligations

under the California cap and trade program. Recognizing that a larger the trading system will help drive the most economically efficient solution, Air Products recommends that CARB consider all relevant external GHG emission trading programs as candidates for approval as sources of fungible compliance instruments.

#### **SUBARTICLE 6 – GHG ALLOWANCE BUDGETS – BASE BUDGET MODIFICATION [§95910(a)]**

The Preliminary Draft Regulation recognizes that misallocation of allowances can result in significant volatility in the allowance markets, creating uncertainty that constrains efficiency improvement investments. While an administrative adjustment mechanism for the allowance budgets could be an expedient tool, Air Products recommends that any such mechanism include the full stakeholder review process.

#### **SUBARTICLE 7 – SURRENDER REQUIREMENTS**

§95920(b) of the Preliminary Draft Regulation requires retention of records used to calculate the surrender obligation for a period of 10 years. Air Products represents that this duration is excessive and should not be greater than other comparable emission cap and trade programs, such as SCAQMD’s RECLAIM program (3 years) or the US Federal Acid Rain Program (5 years).

Additionally, §95920(c) of the Preliminary Draft Regulation requires records be kept at the “covered entity’s designated place of business in California.” Air Products recommends that covered entities should be allowed to maintain relevant records at the designated place of business in California or at a company’s U.S. headquarters facility, if outside California. CARB can require an entity to produce the required records, upon request, in a reasonable time period without requiring that the records exclusively reside in the state.

The “Discussion of Concept – The Compliance Cycle” and Compliance Cycle illustration in the Preliminary Draft Regulation indicate reporting and verification of emissions through the MRR will need to be accelerated to meet the proposed compliance instrument surrender target dates for each compliance period. Many covered entities provided comments to CARB during the development of the MRR that the reporting and verification deadlines in the MRR are already tight, particularly for complex production processes. Air Products recommends CARB retain the reporting and verification dates already approved under MRR and adjust the cap and trade program’s “final surrender true-up date” to be consistent with these MRR dates.

The “Discussion of Concept – Calculating Surrender Obligations for Fuel Delivered” in §95950(c) indicates that hydrogen used as a transportation fuel will incur a surrender obligation upon production, and not when the fuel is consumed as a transportation fuel. Under the Phase-in approach for covered entities, this treatment of hydrogen as a transportation fuel results in surrender obligations beginning in 2012, whereas other transportation fuel consumption will not incur a comparable surrender obligation until 2015. Air Products recommends that all transportation fuels be treated under the cap and trade rule in a consistent fashion, incurring a surrender obligation at the same time, regardless of fuel type.

§95970(b) of the Preliminary Draft Regulation imposes a four percent limit on the portion of an entities surrender obligation that can be met through offsets. Air Products represents that the intent of this regulation is to address global warming. Unlike regional air quality issues, global warming is a worldwide issue. The location of where the CO<sub>2</sub> gets emitted is not a factor. Therefore, limiting the use of offsets and

the geographical area those offsets can come from is not consistent with the main intent of the regulation. It is important that any offsets used be verifiable and meet AB 32 and ARB criteria for what constitutes an offset credit for compliance purposes. The 4% limitation of using offsets to satisfy the surrender obligation is overly strict and should be relaxed. Likewise, CARB should allow offsets from the broadest geographical origin.

#### **SUBARTICLE 8 – DISTRIBUTION OF ALLOWANCE VALUE**

CARB indicates in the Preliminary Draft Regulation that it intends to rely significantly on the recommendations of the Economic and Allocation Advisory Committee (EAAC) to define the extent, and method, of allocating allowances under the cap and trade program. Air Products recommends CARB consider other inputs during the stakeholder process for the cap and trade regulation to guide its final decisions, as the public comment process during the EAAC’s work did not have the benefit of the entire cap and trade rule available in order to put context around the proposed allowance value distribution strategies offered.

As such, Air Products recommends free allocations of allowances be awarded to energy intensive industries to provide temporary cost mitigation during the transition to a carbon-constrained economy. Allocations must be consistently applied, regardless of who produces a product, or will create market distortions than would result from a biased allocation approach where some entities receive allocations and others do not, while operating the same production processes.

In the case of some industries, highly integrated relationships between supplier and customer create an extension of the energy intensity and trade exposure of the host sector. Such is the case with the industrial gas industry, and particularly for hydrogen production to support oil refining, where hydrogen and steam can be made within the refinery and/or imported “over the fence” from an industrial gas specialty company.

A fair allowance allocation process will facilitate achieving the targeted emission reductions while recognizing and further incenting early actions and investment in the most efficient production processes. An allocation process built upon production-based benchmarks will provide incentives for reinvestment in the most efficient production processes – an incentive highly diluted if allocations are awarded based on historical emissions, regardless of process efficiencies. Benchmarking allocation formulas are already being developed to achieve the same desired outcome under the EU ETS Phase 3 development and could serve as a ready model for CARB.

In summary, Air Products recommends free allocations of allowances to Energy Intensive and Trade Exposed (EITE) industry sectors, and their very energy intensive integrated suppliers, with allowances allocated by a consistent (all producers of the same product) benchmark formula. Air Products would not support allowance allocations based on historical emissions.

#### **SUBARTICLE 9 – ALLOWANCE AUCTION DESIGN – COST CONTAINMENT [§96040]**

The “Discussion of Concept – Cost Containment” in §96040 considers the merits of “hard collars” and “soft collars” to help stabilize allowance value and provide a foundation for effective emission reduction investments and compliance strategies. In addition, other measures can be employed to further reduce the volatility of allowance values and maintain an orderly market. Recommended measures include:

- Auction participants should be limited to covered entities that have a need for using allowances to satisfy a surrender obligation. Auction participation should not be open to entities involved principally in financial speculation over allowance/offset values.
- “Hard collars” that set maximum and minimum price controls should be utilized
- “Soft collars” should be added that adjust supply of compliance instruments in the market once price triggers are reached, including the following mechanisms.
  - a. Use of reserve accounts to release additional allowances when prices are high
  - b. Relaxation of the quantitative usage limit on offsets.
  - c. Expansion of the list of acceptable offset project types
  - d. Allowing use of allowances from the next compliance period (“borrowing”)

### **SUBARTICLE 11 – Trading and Banking**

§96080 indicates that the mechanism required to transfer credits from one facility to another must go through the defined trading mechanism, even when both facilities are under common ownership. This adds unnecessary complexity and transaction fees, further increasing the cost of compliance. A company with multiple facilities in the program should have the capability to move credits from one facility to the next without having to go through the trading mechanism. This will allow companies to most effectively manage their allowances.

Similarly, where supplier and customer facilities are highly integrated, such facilities act more as a single entity rather than the multiple entities that the rule would partition them out as because of the ownership situation. Under such circumstances, §96080 should allow for a more simplified transferring mechanism for the following two situations.

- Between two facilities that are owned or operated by the same entity
- Between two facilities that have a direct and interconnected relationship to each other such as a supplier /customer relationship.

### **SUBARTICLE 13 – OFFSET CREDITS**

The “Discussion of Concept – Where Should California Issue Offset Credits?” under §96260(a)(3) considers geographical limitations on offset projects. Air Products supports the broadest inclusion of offset project with regard to geographical origin and offset types.

Air Products appreciates the opportunity to contribute to the regulation development process and will remain an active partner in this effort. If you have any questions or need additional information to support Air Products position on these matters, please contact me by phone (610-909-7313) or email ([adamskb@airproducts.com](mailto:adamskb@airproducts.com)). Thank you for your careful consideration of our concerns.

Respectfully,



Keith Adams, P.E.  
Environmental Manager – Capital Project Permitting and Climate Change Programs

c: Jeff Lockett, Peter Snyder, Wendy Graham, Stephen Crowley – Air Products